

IN THE CLAIMS

1. (Original) A magnetoresistance effect element having a magnetoresistance effect due to a multilayered structure, said magnetoresistance effect element, comprising, magnetic layers and at least an intermediate layer of an insulating material, a semiconductor and an antiferromagnetic material against a magnetic field from said magnetic layers, wherein said intermediate layer is inserted between said magnetic layers to form a magnetoresistance effect multilayered structure, and said magnetoresistance effect multilayered structure is included with terminals at one end and the other end thereof so that a current is flowed in said intermediate layer when the current is flowed in said magnetoresistance effect multilayered structure in one direction.

Claims 2-22 (Canceled)